

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1-29. (canceled)

30. (Currently amended) A method for illuminating viruses in a circulatory blood, comprising:

removing whole blood from a patient or other source, the whole blood containing at least one virus;
adding an anticoagulant to the removed whole blood;
separating the removed whole blood containing the anticoagulant into plasma and blood cells;
performing a light treatment on the separated plasma;
mixing the light-treated plasma with the separated blood cells to form reconstituted whole blood; and
transfusing the reconstituted whole blood into the patient or other source,
wherein
removing the whole blood from the patient or other source and transfusing the reconstituted whole blood into the patient or other source are done simultaneously in time, and
~~adding an anticoagulant into whole blood establishing a circulation system;~~
~~separating the whole blood containing the anticoagulant into plasma and blood cells;~~
performing the light treatment on the separated plasma to obtain the light-treated plasma comprises:
mixing photosensitizer methylene blue with the separated plasma containing the anticoagulant with [[by]] a peristaltic pump to enable an interaction between the photosensitizer methylene blue and at least one virus present in the separated plasma;
illuminating the photosensitizer methylene blue-plasma mixture with a LED for 60 seconds; and

filtering the photosensitizer methylene blue-plasma mixture by passing the photosensitizer methylene blue-plasma mixture through a filter comprising attapulgite to remove the photosensitizer methylene blue; and ~~mixing the filtered plasma with the separated blood cells to reconstitute whole blood and transfusing the reconstituted whole blood into the circulation system.~~

31-35. (canceled)

36. (Previously presented) The method of claim 30, wherein the whole blood is obtained from a blood station, blood bank, blood bag, blood storage device, or freshly isolated from a patient.

37. (Previously presented) The method of claim 30, wherein the virus is Sindbis virus.

38. (currently amended) The method of claim 30, wherein 99.99% of the viruses in the reconstituted whole blood are removed relative to the whole blood removed from the patient or other source.

39. (New) The method of claim 30, wherein the whole blood from the patient or other source is removed through a first tube and the reconstituted whole blood is returned to the patient or other source through a second tube.

40. (New) The method of claim 30, wherein the whole blood is removed from the patient or other source at a rate of 30 to 150 ml per minute.

41. (New) The method of claim 30, wherein the whole blood is removed from the patient or other source and the reconstituted whole blood is returned to the patient or other source at the same rate.

42. (New) The method of claim 30, wherein all acts of the method are performed in a sealed system isolated from the outside environment.

43. (New) The method of claim 30, wherein the rate for transferring the photosensitizer is 1% of the rate for transferring the plasma.